had a temperature of 103°. Oleum ricini was given and quinine, in five-grain doses every three hours. In two days she was normal again. This may have been only a coincidence, but deserves to be mentioned here.)

*Conclusions.* First. The severity of the cases seems to depend upon two things:

A. The degree of infection.

B. Muscular localization. Infection of larynx and diaphragm being the most dangerous.

Second. The diarrhea was not confined to the severe infections, but was found most commonly in the milder cases.

Third. The constant, clean moist tongue found in every case seemed a point of great significance, considering the amount of gastro-intestinal disturbance present.

(*Note.* The epidemic recorded above occurred in the combined practice of Dr. R. T. Legge and the writer.)

## THE COUNTY HEALTH OFFICER AS THE LOCAL REGISTRAR FOR EACH COUNTY IN THE STATE.*

By GEO. E. TUCKER, M. D., Riverside.

At the request of several of the members of this Society I have prepared a short paper in order to present to you the subject of "The County Health Officer as the Local Registrar for each County in the State."

I am not prepared to state that I know that this plan will correct all the evils which exist under the present method, but I feel sure that every one of you has long since realized the necessity of altering our present system, if our death certificates are to be of any value from the legal or vital statistic standpoint.

Under the present plan the County Recorder of each County acts as the Local Registrar and keeps in his office records of all births and duplicate of death certificates, and is authorized to issue burial permits, his duties in this regard being the same as those of the City Health Officer of incorporated towns.

Upon investigating death certificates on file in the office of our County Recorder for the year 1911 and for three months of the year 1912, I find that more than 50% of them are improperly filled out, more than 50% are incomplete and I find several instances where the place of death is not indicated, where the name of the deceased is not indicated, where the sex is not mentioned, color or race not indicated, date of death not indicated and the cause of death wholly inadequate, unintelligent, or absurd, a number of instances where the death certificate has not been signed by a physician or coroner, the place of burial or removal not indicated, the name of the undertaker not indicated.

In more than one instance I found death certificate had been signed by a physician where the cause of death clearly indicated that the coroner should have been called.

And so I might enumerate some deficiency in practically every certificate of the 150 registered for the year 1911.

I consider those certificates which have not been signed by any physician and where no undertaker nor the place of burial has been indicated examples of gross negligence on the part of the registrar.

I was very much surprised and chagrined to find recorded a number of deaths from typhoid fever and scarlet fever. Cases which occurred outside of incorporated towns, within my jurisdiction, but were never reported to me.

Under the system which I wish to recommend, few, if any, of these evils could occur in instances where the County Health Officer was competent and willing to attend to the duties of his office.

I believe that at the next session of the state legislature an effort should be made to bring this matter to the attention of this body and if possible, to have the law changed so that these records may be of some value to the state from a legal, vital statistic and public health standpoint.

I presume there will be some effort made by County Recorders, because of the few cents which they receive for forwarding copies of these certificates, to keep the records in their hands. If it is of any value that copies of birth and death certificates and marriage licenses should be in their hands, it is a very easy matter to have a triplicate copy made and the same forwarded to the office for filing.

**Examples.**

1. Name of deceased not given.
2. Ulcerative Pkisis.
3. Double Pneumonia, no indication of type.
   Contributory—Weak heart, 7 dyas.
4. Contributory—Chronic Neprictis,
   Coroner.
5. Septicemia—1 mo. 8 days.
   Contributory—Pneumonia, 1 mo.
6. Chronic Atitis, which attacted him, causing paralysis and death.
   One day duration.
7. Cancer or Carcoma of the stomach.
8. Myro Carditis.
9. Uremia—5 days.
   Contributory—Prostatic disease.
10. Uremia and lack of vitality.
11. Acute Bronchitis,
    Contributory—Cystitis.
12. Pericarditis—
    Contributory—Rheumatism.
    No physician signed, no undertaker indicated.
13. No undertaker, not place of burial indicated.
14. Chlorea-morbus, few hours.
    92 years 11 mos. 11 days.
15. Place of burial not indicated.
16. Tomaine poisoning and Uraemia.
    No doctor indicated.
17. Disease of liver and stomach.
18. Tumor of brain,
    Contributory—Accident on bicycle.
19. Spinal Meningitis, no type indicated.
20. Cardiac failure,
    Tuberculosis.
22. Accidental crushing of body by falling tree, causing death in about 15 minutes. Witnessed by several and I saw child a few moments after dead. No coroner.

* Read before the Forty-Second Annual Meeting of the State Society, Del Monte, April, 1912.

23. Epilepsy, Alcoholic.
24. Spinal Menengitis, no type.
25. Brights disease.

1911.

| | |
|---|---|
| Jan. | 15 |
| Feb. | 14 |
| Mch. | 7 |
| Apr. | 12 |
| May | 14 |
| June | 7 |
| July | 7 |
| Aug. | 14 |
| Sept. | 13 |
| Oct. | 18 |
| Nov. | 15 |
| Dec. | 14 |
| | 150 |

## HYGIENIC LABORATORY OF THE STATE BOARD OF HEALTH.*

Report by W. A. SAWYER, M. D., Berkeley.

At the beginning of the current year the State Board of Health established a Division of Epidemiology under the Bureau of the Hygienic Laboratory. As a result, we anticipate being able to do more than ever before in studying and controlling epidemics. The Division has already made decided progress along two lines of investigation, both of which depend to a great extent on the laboratory side of the work.

The first epidemiological study was that of the present epizoötic of rabies. The pin map in the laboratory and our records of examinations of animals' heads show how the disease in California first became prevalent in Los Angeles in the summer of 1909. It spread over a large part of Southern California and finally crossed the Tehachapi mountains in January, 1911, when it appeared in Bakersfield. From there it moved steadily northward and became very prevalent in Kings, Tulare, and Fresno counties. North of this there had been, until recently, no indication of the disease except a few scattered cases. The disease is now present in Merced, Stanislaus, San Joaquin, and Contra Costa counties, and in San Francisco.

We have made 210 examinations of animals' heads for rabies at the State Hygienic Laboratory in the past two and one-half years. 149 of these showed positive evidence of rabies. The increase in the number of cases is indicated by the fact that in the first year and a half we had 44 positive cases, and in the last year, 105. The months showing the most examinations were those of the past winter.

In San Francisco we had a case in October, 1911, and no other until January 30, 1912. During February and March and the first half of April, the laboratory of the Health Department of San Francisco examined 104 brains for rabies; 75 gave positive results. Two of the San Francisco cases were human and were confirmed by examinations in the city and state laboratories. Ten human deaths have occurred in California up to date; 7 in Southern California, one in the San Joaquin Valley, and two in San Francisco.

The second epidemiological investigation which I wish to call to your attention is a study of cases of typhoid fever among sailors. Some time ago it was noticed at the Marine Hospital in San Francisco that a great many typhoid cases came from a single ship. This was brought to the attention of the State Board of Health last December. Our investigation was carried on in two ways, by field work among the ships and by laboratory examinations. We found that a "carrier" on board a lumber steamer was responsible for twenty-seven cases. Four of these died. The cases from this "carrier" which were sent to the Marine Hospital represented one-fourth of all the cases of typhoid admitted to that hospital during nearly four years, and one-third of the deaths.

These two studies are examples of the kind of work which will be carried on by the Division of Epidemiology.

* Read before the Forty-Second Annual Meeting of the State Society, Del Monte, April, 1912.

## DIAPHRAGMATIC PLEURISY.*

**A Stumbling Block in the Consideration of the Acute Abdomen.**

By DANIEL CROSBY, M. D., Oakland.

In these days of rapid surgical advance, more and more those men who are doing only occasional surgery are operating upon patients who were heretofore left for the consideration and discretion of the surgical specialist.

The immediate and amazing relief which follows successful surgical intervention in acute conditions in the abdomen has placed the general public in a receptive mood leading to the ready acceptance of advice for operation with the result that many abdomens are opened before the operator has taken the pains to establish premises for his procedure, and in no group of cases perhaps is there more chance of error, and more demand for painstaking inquiry and observation than in those cases of abdominal pain in which a lesion above the diaphragm may be a causative factor.

Appendicitis, its dangers and disasters has set even the most poorly informed of the general public by the ears and a medical attendant who does not recognize it speedily, comes in for a full measure of condemnation. Furthermore, an increased interest in and understanding of evidence of ulceration of stomach and duodenum with the not infrequent resultant perforative peritonitis keeps medical men upon the qui vive to identify such catastrophes

* Read before the Forty-Second Annual Meeting of the State Society, Del Monte, April, 1912.